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(54) Abstract Title
Electronic game interface

(57)   In an electronic game in which a player controls the movements, or properties, of characters or items displayed upon a screen by means of keystrokes on a data entry device, specific effects are achieved by the player reproducing specific keystroke sequences in a memorised rhythm, ie without cueing. If the sequence or rhythm is reproduced incorrectly, different secondary effects may result. The game can be played solo or in a multi-player mode, and one application is where particular keystroke sequences and rhythms are associated with the casting of spells in games based upon fantasy situations. Sounds can be associated with each key so that a tune corresponds to each correct sequence.

ELECTRONIC GAME INTERFACE

This invention relates to electronic games in which a player controls the movement of, or affects properties of, characters (both in the sense of representations of persons and in the

5   sense of symbols) or items displayed upon a screen or other display device.

Electronic games are widely known and come in many forms. There are dedicated machines that may be used to play a single or restricted range of games. There are so-called console machines that are dedicated games machines that can be reprogrammed either by cartridge, optical disk, or other means so as to play a wide range of games. And there are games

10   supplied as programs on optical disks or other data storage means, or over a network, and capable of being loaded onto a conventional computer so as to play a game.

All electronic games require the user to learn a set of commands that are entered into the computer through a data entry device. Data entry is usually by keystrokes on a keyboard or by operation of other data entry devices such as a mouse or a dedicated keypad. In the

15   following a single operation of a key or button on a data entry device is referred to as a keystroke.

Some computer commands may require the user to enter keystrokes in a particular sequence to achieve a desired result, and the wrong sequence does not work (e.g. CTRL-ALT-DEL to reset a PC does not work if you input CTRL-DEL-ALT).

20   Some computer commands may require the user to press two or more keys within a given time to achieve a desired effect (e.g. the so-called "double click").

Music play requires a player to memorise keystrokes and rhythms but this is not part of electronic games and does not control the movement of, or affect properties of, characters or items upon a screen or other display device.

25   There are so-called dancing games, in which a computer plays a tune and the player has to follow the tune in time. If the player follows the tune well, dancing characters may dance more animatedly, whereas if the player plays badly the dancing characters may stop or pull faces at the player. These games do not require the player to memorise keystrokes and rhythms and reproduce them without auditory cuing, but merely to follow along with the

30   tune.

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So far as the inventors are aware no game requires the player to memorise a keystroke sequence and associated rhythm and, without cuing, to press the keystroke sequence in the specified associated rhythm to control or affect a character or item on a screen.

5 The inventors have realised that the richness of electronic game play can be enhanced by requiring game players not only to memorise particular sequences of keys, but also rhythms associated with the sequences.

Accordingly, the present invention provides an electronic game in which a player controls the movement of, or affects properties of, characters or items displayed upon a screen or other
10 display device by means of keystrokes on a data entry device, characterised in that, the player is taught keystroke sequences, and rhythms associated with the keystroke sequences, and in which to achieve a first effect of a given keystroke sequence, the player must match, from memory, the associated rhythm on entry of the keystrokes.

If a given sequence is entered with the incorrect rhythm one or more second effects may
15 result dependent upon the resemblance of the incorrect rhythm to the associated rhythm.

Two or more keystroke sequences and their rhythms can be combined to achieve a further effect upon the game.

Further features of the invention are described below with reference to a game playing scheme for a "Harry Potter™" (RTM) game in which keystroke sequences and associated rhythms
20 are used to cast spells.

The Harry Potter™ (RTM) books by J.K. Rowling are an extremely popular series of children's books that have achieved almost as much popularity with adults. In these stories the eponymous hero attends a school for wizards (Hogwarts™ (RTM)) and learns to make magic. An electronic game version of these books according to the present invention would provide both
25 the learning aspect of memorising keystroke sequences and associated rhythms representing spells, and the interest of seeing what happens upon a faulty repetition of keystroke sequences and associated rhythms.

The game could be divided into "school days" having daytime, where the player's character would attend lessons and learn spells (i.e. keystroke sequences and associated rhythms) and
30 night time when the player's character could have adventures about Hogwarts™ (RTM).

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Players would be given a set key sequence, which was related to a certain spell and the rhythm of the spell and would have to repeat the key sequence in the correct rhythm in order to cast the spell. For example a spell to make the player invisible would be: *"Evenao Perspicuous"* with the key sequence: ◎⊗◎▣. The player would have to press the correct

5   keys in the correct rhythm to perform the spell. Once the spell has been completed correctly, the player could repeat the spell at will, but the better the rhythm of the key press the better the spell will be performed. Optionally, a faulty repetition of the rhythm may lead to a wrong spell being cast or even to no effect at all. Indeed it may be a feature of the game that some spells have the same key sequence but different rhythms.

10   As a further feature players could be able to link spells together. For example by simply adding spell sequences together or by using a special linking spell. For example the linking spell could be ⊗⊗ buttons after a spell. Adding an additional spell after the linking spell would join the two spells together.

For example you could have a spell to extend the life of a normal spell called *"Maximus"*

15   which would be the key sequence repeated in the correct associated rhythm ▣▣▣ so by taking the spell *"Evenao Perspicuous"* and linking it with the extender spell *"Maximus"* the player could create an extended invisibility spell, which would cause the player to stay invisible for a longer period. In order to cast this spell the player would press the keys below to a set rhythm.

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"Evenao Perspicuous"	+ "Linking"	+	*"Maximus"*
◎⊗◎▣	+ ⊗⊗	+	▣▣▣

As mentioned above, if the player gets the rhythm wrong then the keystrokes would fail to have the desired effect. The resultant effect can be dependent upon the resemblance to the rhythm of the entered keystroke sequence. Either no effect would be achieved, or a modified

25   effect. For example, a rhythm that closely resembled the correct rhythm could achieve a weakened version of the effect desired, whereas a rhythm that was more remote could achieve either an undesired effect (e.g. a spell rebounding) or an unpredictable (to the player) effect. The resemblance can be measured by actual timing of each keystroke, or by relative times between keystrokes, or by the time for which each key is pressed, or any other desired

30   characteristic or combination of characteristics that reflects rhythm.

In addition to the spells learnt in "lessons" the game could provide hidden spells that may be found by a player during the course of play.

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Optionally, the spells a player has learnt could be saved to a memory device (e.g. a memory card) enabling players to trade spells with each other.

As a further feature, players could load their characters from their single player game and then duel against another player in a special duelling multiplayer game. For example, players would face each other and have a short period of time to cast the most powerful spell they could, with the aim of disabling the other player. The player who cast the spell first would be the winner. Players would have all of the spells available to them they had discovered from their single player game.

As a further feature, the Harry Potter (RTM) books discuss trading cards found in Chocolate Frog Sweets (RTM). The players could find such Chocolate Frog Sweets (RTM) during the game and trade with other characters in the game with the aim of getting a full set which would open up further game features for the player. Optionally such trading cards could be saved to a memory device for trading with other players of the game.

An additional feature, which could add to the experience of the game, is to have a sound associated with each key so that on repetition of a spell in the correct rhythm a tune is played. In this case some spells may only be revealed by the playing of the tune so that the player has to learn to execute the keystroke sequence and associated rhythm without sight of symbols representing keys.

A further optional feature is that a game could contain hidden untaught keystroke sequences and associated rhythms to achieve additional effects. These hidden keystrokes could be revealed in an associated video or data disk with which players can learn new features to play the game.

It will be readily apparent that the concept of combining keystroke sequences with associated rhythms to control the movement of, or affect properties of, characters or items upon a screen or other display device is capable of use in a wide variety of electronic games. The added feature of rhythm both acts to train the ear and memory, and to add to the variety and richness achievable with a game.

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In the above, actual physical keystrokes have been described. It is of course possible for the keystrokes to be made on virtual keys. For example, a set of virtual keys could appear on the screen or other visual display device used and pointing to these virtual keys with a data input device (for example a mouse or a data input wand) could effect the keystroke sequence. As

5 an added feature, in the Harry Potter™ game, the character a player is playing could be presented in first person perspective and the wand of the character could follow the data input wand of the player.

The present invention is not restricted to any particular data input device.

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CLAIMS

1. An electronic game in which a player controls the movement of, or affects properties of, characters or items displayed upon a screen or other display device by means of keystrokes on a data entry device, characterised in that, the player is taught keystroke sequences, and rhythms associated with the keystroke sequences, and in which to achieve a first effect of a given keystroke sequence, the player must match, from memory, the associated rhythm on entry of the keystrokes.

2. An electronic game as claimed in claim 1 in which if a given sequence is entered with the incorrect rhythm one or more second effects result dependent upon the resemblance of the incorrect rhythm to the associated rhythm.

3. An electronic game as claimed in claim 1, or claim 2, in which two or more keystroke sequences and their rhythms can be combined to achieve a further effect upon the game.

4. An electronic game as claimed in claim 3 in which the further effect is a modification of one of said keystroke sequences.

5. An electronic game as claimed in any preceding claim in which the keystrokes are made by pointing a data input device at virtual keys on the screen or other display device.

6. An electronic game as claimed in any preceding claim in which keystroke sequences and associated rhythms can be stored on disk or other writeable data storage medium for trading with other players of the game.

7. An electronic game as claimed in any preceding claim in which keystroke sequences and rhythms learnt by a player in a single player mode of said game can be used in a multi-player mode of said game.

8. An electronic game as claimed in any preceding claim in which sounds are associated with particular keys so that a keystroke sequence entered with the correct associated rhythm plays a tune.

9. An electronic game as claimed in claim 8, in which some keystroke sequences and associated rhythms are only be revealed by the playing of the tune, so that the player has to learn to execute the keystroke sequence and associated rhythm without sight of symbols representing keys.

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10. An electronic game as claimed in any preceding claim containing hidden untaught keystroke sequences and associated rhythms to achieve additional effects.

11. A data storage device or medium containing a program that in combination with a game playing device provides the electronic game as claimed in any preceding claim.

12. A data storage device or medium usable to reveal hidden untaught keystroke sequences and associated rhythms of the electronic game of claim 10.

13. A computer program product that in operation upon appropriate apparatus provides the electronic game as claimed in any of claims 1 to 10.